



AMENDMENT OF CLAIMS

(Claim 21, amended)

21. A distributed computing method comprising the steps of:

creating a plurality of software entities (“molecules”) each of which is to be deployed in a remote computing environment and is configured with signal handling software micro-components for sending and receiving communication signals to or from [another molecule or logic web] a source externally of the respective molecule, said signal handling micro-components of each molecule being operatively connected to [each other] a selected one of a plurality of method handling software micro-components for processing input data by a respective selected method in [a] the given remote computing environment in which said molecule is deployed and providing a resulting output of processing the input data;

deploying [the plurality of molecules each] a first molecule with a method handling software component for a respective selected first data processing method on a respective one of a plurality of remote computing environments, together with a library containing a plurality of method handling software components for a corresponding plurality of data processing methods which may be selectively invoked in the remote computing environment; [and]

[initializing] wherein each first molecule deployed in its respective computing environment invokes a next subsequent molecule with a method handling software component retrieved from the library for implementing a next selected data processing method, and similarly for subsequent molecules, at least one of which is selected in response to receipt of a communication signal from the external source, thereby creating [to initiate] a “logic web” of molecules of successive data processing [functions] methods in successive layers of incremental processing steps [, with a first molecule invoking one or more other molecules] to incrementally extend said logic web “on the fly” in response, at least in part, to communication signals from the external source.

(Claim 22, original)

22. A distributed computing method according to Claim 21, wherein each logic web in each computing environment performs its data processing functions in its respective computing environment autonomously, and returns an output which is desired to be obtained from that computing environment.

(Claim 23, original)

23. A distributed computing method according to Claim 22, wherein each logic web returns the output for its respective computing environment to an external monitoring entity, and said external monitoring entity combines the outputs from the other computing environments to obtain a combined output of distributed computing.

(Claim 24, original)

24. A distributed computing method according to Claim 23, wherein the computing environments are a plurality of computing sites distributed on a network, and the logic webs return their outputs by sending signals on the network.

(Claim 25, original)

25. A distributed computing method according to Claim 23, wherein the computing environments are a plurality of computing resources in an array of processing units (CPUs) operated in parallel in a parallel processing environment.

(Claim 26, original)

26. A distributed computing method according to Claim 21, wherein said software micro-components include a signal handler, at least one input handler, at least one output handler, an interface handler, and at least one method handler for an associated method, said at least one input handler being operative for queuing input data, said interface handler being operative for determining when a predefined input condition for required input data to be received by said input handler is fulfilled and then invoking said method handler, said method handler being operative for invoking said associated method for processing the input data, and said at least one output handler being operative for outputting a result of the processing of input data by said method.

(Claim 27, amended)

27. A distributed computing method according to Claim 21, wherein said software micro-components are stored in [a] said library for run time use, and during run time a logic web is deployed in a given computing environment by invoking a first molecule to be retrieved from the

library and executed in the given computing environment, and said first molecule invoking one or more other molecules to incrementally extend said logic web “on the fly”.

(Claim 28, original)

28. A distributed computing method according to Claim 21, wherein said creating step includes creating molecules having a handler function for creating next molecules in successive layers of incremental processing steps.

(Claim 29, original)

29. A distributed computing method according to Claim 21, wherein said creating step includes creating molecules having a built-in handler function for performing a clean-up of its functions when the molecule is to be terminated.

(Claim 30, original)

30. A distributed computing method according to Claim 21, wherein said creating step includes creating molecules having a handler type for recording information on the state of its micro-component handlers and signaling such state information externally through said signal handler.

(Claim 31, original)

31. A distributed computing method according to Claim 21, wherein said signal handler can receive signals for and has a handler type for dynamically reconfiguring the micro-component handlers of the molecule while it is in existence to perform a processing task.

(Claim 32, original)

32. A distributed computing method according to Claim 21, wherein said interface handler includes a handler type for providing the molecule with the characteristic of autonomously waiting, looking, and proceeding with said associated method for processing the input data by waiting until said input handler indicates that the predefined input conditions are present before invoking said method handler for the associated method.

(Claim 33, original)

33. A distributed computing method according to Claim 21, wherein said interface handler includes a plurality of handler types for determining when respective predefined input conditions for the presence of respectively required data is fulfilled and for invoking respective ones of a plurality of method handlers and associated methods.

(Claim 34, original)

34. A distributed computing method according to Claim 21, wherein said input handler is selected from one of a plurality of input handler types corresponding respectively to a plurality of different data source types.

(Claim 35, amended)

35. A network computing method comprising the steps of:

creating a plurality of software entities (“molecules”) each of which is to be deployed in a remote computing environment and is configured with signal handling software micro-components for sending and receiving communication signals to or from [another molecule or logic web] a source externally of the respective molecule, said signal handling micro-components of each molecule being operatively connected to [each other] a selected one of a plurality of method handling software micro-components for processing input data by a selected method in [a] the given remote computing environment in which said molecule is deployed and providing a resulting output of processing the input data;

deploying [the plurality of molecules each] a first molecule with a method handling software component for a respective selected first data processing method on a respective one of a plurality of remote computing environments, together with a library containing a plurality of method handling software components for a corresponding plurality of data processing methods which may be selectively invoked in the remote computing environment, [which] wherein the remote computing environments are network computing sites distributed on a network; [and]

[initializing] wherein each first molecule deployed in its respective computing environment invokes a next subsequent molecule with a method handling software component retrieved from the library for implementing a next selected data processing method, and similarly for subsequent molecules, at least one of which is selected in response to receipt of a communication signal from the external source, thereby creating [to initiate] a “logic web” of molecules of successive data processing [functions] methods in successive layers of incremental

processing steps [, with a first molecule invoking one or more other molecules] to incrementally extend said logic web “on the fly”; and

providing a communication signal from a control source on the network to [having] each logic web at each network computing site to command, at least in part, its performance of [its] one or more selected data processing functions “on the fly” in its respective computing environment autonomously, and return [s] of an output which is desired to be obtained from that network computing site.

(Claim 36, original)

36. A network computing method according to Claim 35, wherein each logic web returns the output for its respective network computing site to a network monitoring entity, and said network monitoring entity combines the outputs from the network computing sites to obtain a combined output for the network.

(Claim 37, original)

37. A network computing method according to Claim 36, wherein the network is a network of networks (“the Internet”), and the logic webs are deployed at websites on the Internet to compute data autonomously from the websites and return their outputs to the network monitoring entity.

(Claim 38, original)

38. A network computing method according to Claim 35, wherein said software micro-components include handlers for processing data streams from different data sources and providing the resulting processed data outputs to the network monitoring entity.

(Claim 39, original)

39. A network computing method according to Claim 38, wherein said software micro-component handlers of the molecules are configured to process respective media data streams in different formats from different media data sources and provide the media data streams reformatted to a desired file type to the network monitoring entity.

(Claim 40, original)

40. A network computing method according to Claim 39, wherein the network monitoring entity performs a high level function of monitoring different media data streams published in different formats from different sources on the network.